ENGINEERING

Regional Supervisor, Branch of Refuges

February 23, 1960

Regional Engineer ER

Tewaukon Refuge, North Dakota -- 1960 Water Program

We are returning herewith copy of the subject program dated December 12, 1959, which we reviewed.

We concur in the plan to hold pools at spillway crest level. We hope that the drought is broken and that snow melt will be sufficient to fill the pools.

John D. Umberger

Attachment

1 cc : Br. of Refuges

ELDoeling/rlm

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Regional Director, Minneapolis, Minnesota December 12, 1959

Refuge Manager, Tewaukon Refuge, Cayuga, N. Dak.

Annual Water Program - 1960

The Water Management Plan for Tewaukon Refuge has as yet not been completed. I hesitate to complete this plan until I have a better understanding of hte water situation here. I believe that by next fall, after observing this resource through one complete year, I will be more qualified to complete the plan. In view of the above the following Annual Water Program is submitted.

At the present time Lake Tewaukon is about three feet below spillway elevation. This shows a drop of about two feet during the summer months. Aquatic vegetation was again scarce, although a few small beds were noted in late summer. Waterfowl use was limited mostly to resting purposes.

Cutler Marsh is about three and one-half feet below spillway elevation. A winter kill of all fish should take place as the maximum depth is only two and one-half to three feet. Submerged aquatics are virtually absent from this pool. A dense emergent growth is present in the northwest portion. Waterfowl use of this area was greatly reduced because of the absence of a food supply.

White Lake is about two feet below spillway. Aquatic vegetation is nearly non existant in this pool also and consequently waterfowl use was restricted to resting purposes.

Clouds Lake is about four feet below spillway elevation. Submerged aquatic vegetation growth was excellent this year. During fall migration very heavy ues of this area occurred for both feeding and resting.

Water Management planned for 1960 is as follows: Maintain all pools at spillway elevation during the summer months. This elevation, if obtained, will help control the dense emergent growth in Cutler Marsh. If at the end of summer, further control of this vegetation is deemed necessary, the level of Cutler Marsh should be dropped two and one-half feet before fall freeze up. This will allow for mechanical control of the emergents.

The installation of mechanical fish barriers between Cutler Marsh and Lake Tewaukon and between Cutler Marsh and White Lake is planned. If the expected fish winter kill in Cutler Marsh occurs these barriers should insure a carp free water area in 1960.

James B. Monnie

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